

AMENDMENTS TO THE CLAIMS

1. (currently amended) A ~~H~~hydraulic device for injection of bone cement in a percutaneous vertebroplasty comprising, ~~that comprise four main parts, namely:~~ an injecting syringe, a pressure exerting body, a hydraulic transmission tube, ~~an~~ manual impulsion and a fluid control syringe; wherein the injection syringe is a commercially available disposable 3 ml hypodermic syringe is placed next to the patient; the hydraulic tube for pressure transmission, of 1.0 m to 1.5 m length, is placed between the impulsion or the manual injection syringe and the pressure exerting body; the manual impulsion syringe is placed after the hydraulic tube and near the operator, ~~characterized by~~ and the pressure exerting body consists of a hollow cylindrical body in the form of an inverted syringe ~~of having a larger~~ diameter with an adapted ending having like an open bolster with ~~the~~ a largest external diameter and two diametrical opposed cuts having an like oval entry, and also in the other end having one tip of a reduced diameter; an peripheral groove in the internal wall of ~~such~~ the bolster such that it, ~~couples~~ tightly with the wings of the injection syringe in a revolved way; ~~such~~ and the pressure exerting body has a movable piston on an axial direction to define two chambers, namely, an internal and an external chamber.

2. (currently amended) The ~~H~~hydraulic device ~~offor~~ for injection of bone cement according to the claim 1, ~~characterized by~~ wherein the cylindrical hollow of the pressure exerting body-(1), is in form of an inverted positioned syringe that renders a mechanical advantage to the force exercised in the manual syringe and, it has a larger diameter and consists of a joining bolster with an internal peripheral groove ~~where are~~ that is to coupled the wings of the injecting 3 ml syringe; a body cylindrical lengthened hole ~~of~~ having a volume of 10 ml ~~of volume~~ that contains a first free camera where the plunger (e)-of the injection syringe lodges inside the cylinder until coupled with the moving internal piston-(4), and a second internal camera (5)-occupies ~~by~~ a hydraulic fluid, and the cameras are separated by such piston (4)-surrounded by a rubber cap that seals the internal wall of the body of pressure and avoids leakage of the hydraulic fluid; and a final end tip of reduced diameter that is connected in a hermetic way to the hydraulic tube-(7).

3. (currently amended) The ~~H~~hydraulic device ~~of~~ for injection of bone cement according to the claim 2, ~~eharaeterized by~~ wherein the bolster is adapted to receive in a first

predetermined position of ~~an~~the oval entry (70) the wings of the injection syringe, and in second position by a 90° turn in ~~thea~~ peripheral groove (90), placed in a tight way.

4. (currently amended) ~~The~~ Hhydraulic device ~~of~~for injection of bone cement according to the claim 1, ~~characterized by~~wherein the manual syringe (8) is a lengthened syringe that has a smaller diameter than the pressure exerting body in a 2/1, 3/1, 4/1 ratio, and it is connected in continuation, far from the application point by a hydraulic tube.

5. (currently amended) A method of operating the device for injection of bone cement ~~that comprising~~es:

~~to~~-inserting a -bone biopsy needle in the place where the bone cement is to be delivered;:

~~to~~-connecting- the injecting syringe, loaded with the cement, in continuation of the needle;

~~to~~-couplinge in a revolved way, the injecting syringe in the internal peripheral groove of the bolster of the pressure exerting body;

~~to~~-exerting pressure on the plunger of the injecting syringe by means of the force exerted in the plunger of the manual syringe placed in the other end of the hydraulic tube such that,this way, the content of the injecting syringe is injected in the patient's vertebral body;

~~to~~-retracting the plunger of the manual syringe to withdraw the internal piston of the body of pressure in -position -to receive a new loaded cartridge of bone cement;

~~to~~-uncouplinge- the injecting syringe from the bolster of the body of pressure;

~~to~~-disconnecting the empty syringe from the needle placed in the patient's body;

~~to~~-couplinge the new cartridge of bone cement (~~injecting~~syringe) in the needle and bolster of the body of pressure;,-and

Application No. TBA
Amendment dated
First Preliminary Amendment

Docket No.: HO-P03225US0

repeating the previous steps to place another new cartridge of bone cement,— until completing the filling- of the vertebral body.